INDEX

	Page
Opinion below	1
Jurisdiction	1
Question presented	1
Statement	2
Argument	4
Conclusion	8
Cases:	
American Fruit Growers v. *Frogdex Co.*, 283 U. S. 1 (1931)	8
Century Electric Co. v. *Westinghouse Electric & Mfg. Co.*, 191 Fed. 350 (1911)	5
Chicago Steel Foundry Co. v. *Burnside Steel Foundry Co.*, 132 F. 2d 812 (1943)	8
Deering v. *Winona Harvester Works*, 155 U. S. 286 (1894)	7
General Talking Pictures Corp. v. *Western Electric Co.*, 304 U. S. 175 (1938)	5
Halliburton Oil Well Cementing Company v. *Walker*, 146 F. 2d 817 (1944)	5
Jogger Mfg. Corp. v. *Roquemore*, 118 F. 2d 867 (1941)	5
Jones v. *United States*, 100 F. Supp. 628 (1951)	7
Keller v. *Adams-Campbell Co.*, 264 U. S. 314 (1924)	5
Layne & Bowler Corp. v. *Western Well Works, Inc.*, 261 U. S. 387 (1923)	5
Scaife, William B., & Sons Company v. *Falls City Woolen Mills*, 209 Fed. 210 (1913)	8
Yates v. *Jones*, 176 F. 2d 794 (1949)	7

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In the Supreme Court of the United States

OCTOBER TERM, 1956

No. 367

HARRIS D. HINELINE, PETITIONER

v.

THE UNITED STATES

ON PETITION FOR A WRIT OF CERTIORARI TO THE UNITED STATES COURT OF CLAIMS

BRIEF FOR THE UNITED STATES IN OPPOSITION

OPINION BELOW

The opinion of the Court of Claims is reported at 138 F. Supp. 866.

JURISDICTION

The judgment of the Court of Claims was entered on March 6, 1956. A timely motion by petitioner for a rehearing was denied June 6, 1956, and the petition for a writ of certiorari was filed on August 31, 1956. The jurisdiction of this Court is invoked under 28 U. S. C. 1255.

QUESTION PRESENTED

Whether United States military devices which use radio waves to determine the altitude and position of an aircraft infringe petitioner's patent 2,366,621.

STATEMENT

Petitioner sued the United States in the Court of Claims for infringement and unauthorized use of his patent. The pertinent findings of the court may be summarized as follows:

Petitioner's patent describes a system for indicating the altitude of an aircraft, from the plane, by use of an electronic device. This apparatus directs radio waves earthward and, after reflection by that remote surface, the waves rebound and are detected by receptive apparatus on the aircraft. A relationship between the transmitted waves and the received, reflected waves indicates the aircraft's height above the surface of the earth. Finding 1. The characteristic element in petitioner's system is the modulation of the transmitted radio waves; that is, an electromagnetic wave is added to the carrier wave broadcast by the radio transmitter, and this combined wave has an amplitude which varies constantly in a recurrent pattern from 0 to 360 degrees. Altitude is ascertained by measuring the phase relationship (or the point of advancement in variation, as compared to a standard position), between the peak amplitude of the transmitted modulated wave and the peak amplitude of the reflected, modulated wave. Findings 10, 14, and 15.

Petitioner alleges that two structures infringe upon his patent and were used by the Government without license or consent: first, a mobile radar unit adapted to locate and track enemy aircraft in terms of range, height, and angle of elevation; second, a radio altimeter to determine height above the surface of the earth. Findings 19 and 25. The operation of both

devices is dependent upon the same principle—intermittent transmission of pulses of energy, reception of the echoes in response to the pulses, and measurement of elapsed time between transmission and reception to indicate the distance to the remote object. Finding 29. The pulses may occur as often as nine thousand times per second and are separated by periods of total silence many times longer than the duration of the pulse. As pointed out in the manual which explains the radar tracking apparatus (Finding 20):

> * * * If the energy were transmitted continuously, there would be many reflections; however, the reflected energy would be very weak as compared with the transmitted energy and thus the echoes would be drowned out and could not be detected in the presence of the main radiations. Consequently, pulse transmission must be used * * *.

This same technical manual (TM 11-1527) contains a Simplified Block Diagram which, in describing the transmitter system in the Government's structure, refers to a "Rotary Spark Gap Modulator." See Figure 10 attached to the Court of Claims' opinion.

In the original claim submitted to the Patent Office, petitioner did not indicate that phase characteristics were compared in order to determine distance from the reflecting object. Finding 16. The Patent Office rejected the claim thus defined as lacking invention and anticipated by prior art [1] and, subsequently, petitioner

[1] A brief description of prior art in this area includes the work of the following men: *Lowy*, application for letters patent filed in 1923: device to show the height of a flying aircraft by regulating the length of the periods of transmission and alternating non-

amended his claims to include reference to an indicator, connected to the modulating transmitter and detector, for comparison of phase relationships. *Ibid.* In amending his description of the device, petitioner explained that: "*phase comparison is the essence of* [this] Applicant's invention and permits of the measurement of the altitude *without counting wave lengths and without time measurements* * * *." [Emphasis added.] Finding 17.

The Court of Claims concluded that petitioner's patent was not infringed by the devices admittedly utilized by the armed forces of the United States.[2]

ARGUMENT

This case involves a narrow issue of fact: whether certain military devices used by United States armed forces infringe upon letters patent granted petitioner. Not only does the issue lack sufficient general conse-

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transmission of electric waves. By varying the pulse length of the wave, the reflected echo can be made to coincide exactly with the silent periods and the duration of the transmission and alternating silence is then a factor of the distance to the remote object. *Jenkins*, application filed 1924: apparatus for measuring altitude by comparing the phase of various radio wave lengths. *Bentley*, application filed 1928: device which modulates the frequency of a radio wave, thereby producing a steady, discernible beat in the echo response which is then applied to an indicator calibrated to read directly into altitude.

[2] In the findings of the Commissioner, it was also concluded that the patent was invalid because anticipated by prior art. In explaining its failure to discuss the issue, the Court of Claims wrote: "* * * we do not think it is necessary to discuss this question or to make findings thereon since we think there is no basis for questioning the correctness of our conclusion that defendant's apparatuses do not infringe plaintiff's patent." See 138 F. Supp. 866, 869.

quence to merit consideration by this Court,[3] but the evidence fully supports the Court of Claims' unanimous opinion that petitioner's patent was not infringed.

1. Petitioner's conception as taught by his patent claim, and the radar devices actually produced and used by the United States, each have the same general objective—to indicate the height of an aircraft above the earth by use of an electronic apparatus. The law requires a further identity, however, before infringement will be found—an identity variously expressed as one of principle, mode, function, or means. See *Haliburton Well Cementing Company* v. *Walker*, 146 F. 2d 817, 820 (C. A. 9); *Jogger Mfg. Corp.* v. *Roquemore*, 118 F. 2d 867, 870 (C. A. 7); *Century Electric Co.* v. *Westinghouse Electric & Mfg. Co.*, 191 Fed. 350, 365 (C. A. 8). It is often difficult to decide such factual issues, but in the instant case the points of difference between the two structures are remarkably clear. Petitioner's invention depends upon combination of a modulating wave with a radio wave, and a determination of the relationships between the peaks of the transmitted and the reflected waves, expressed in degrees of phase displacement. The devices used by the United States employ no modulating wave, and measure distance by the time lapse between the trans-

[3] The Court has stated that it will not grant a writ of certiorari to review a question of infringement unless there is a conflict between decisions of courts of appeals. *Keller* v. *Adams-Campbell Co.*, 264 U. S. 314; *Layne & Bowler Co.* v. *Western Well Works, Inc.*, 261 U. S. 387; see *General Talking Pictures Corp.* v. *Western Electric Co.*, 304 U. S. 175, 178–179.

mission of an electrical impulse and reception of its responsive echo. Further, petitioner's device transmits continuously while the alleged infringing device transmits only a pulse of energy, then remains silent a relatively long period of time while awaiting an echo. It was on the basis of these distinctions that the Court of Claims decided that the patent was not infringed.

Petitioner does not seriously contest the Court of Claims' findings as to the elements of difference between the two devices. Instead, he relies on the use of the term "Rotary Spark Gap Modulator" on a diagram label in a manual describing radar apparatus used by the United States. See *supra*, p. 3. In contending that the alleged infringing devices use a modulated wave because of the word "Modulator" on the diagram, petitioner ignores the fact that the labeled device simply is not a modulator in any relevant sense of the word.[1] As pointed out by the Court of Claims, use of the term may have resulted from error or simply because a loose secondary usage was ascribed to a term of art. Petitioner, had he invented an engine, might argue with equal merit that his patent was infringed where a radar unit is described as "an engine of war."

2. Phase displacement as a function of distance traveled was not an element of petitioner's claim as first submitted, and only after his patent request was

[1] The petition for a writ of certiorari makes much of the fact that the radar manuals were stipulated in evidence (Pet. 2–5, 8). It is clear, however, that the manuals were placed in evidence only to describe devices in use by the United States, and petitioner's argument that each and every word in the publications was also stipulated as true scarcely merits refutation.

rejected as lacking invention was this novel characteristic inserted. This element, however, which is said to distinguish petitioner's conception from the prior art and to lend it an inventive quality, is the very one which distinguishes it from respondent's apparatus. Petitioner realized as much when he wrote on the file wrapper of the patent at the time of amendment that "* * * This phase comparison is the essence of the applicant's invention and * * * [is] without time measurements." Petitioner now contends that "without" was a typographical error and really meant "with", but submits no evidence to support this contention.

3. Unless petitioner's claims are construed narrowly so as not to conflict with the Government's radar system,[5] they will be invalid because readible upon prior art. The essential difference between petitioner's invention and structures used by the United States is the discovery of distance through phase relationship as opposed to time lapse. If petitioner's contention is correct that time and phase measurement are inseparably interrelated (Pet. 10), then earlier patents such as those of Lowy and Bentley which depend upon a variation of the time-lapse theory would anticipate his patent claims.[6] A claim may not be construed broadly in order to argue infringement, and then narrowly to avoid anticipation by prior art. See

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[5] Since petitioner's invention remained a "paper patent" and was never reduced to practice, it must be narrowly construed. See, *e. g.*, *Deering* v. *Winona Harvester Works*, 155 U. S. 286; *Yates* v. *Jones*, 176 F. 2d 794 (C. A. 4); *Jones* v. *United States*, 100 F. Supp. 628, 658, 659 (Ct. Cls.).

[6] See footnote 1, *supra*, pp. 3–4.

Chicago Steel Foundry Co. v. *Burnside Steel Foundry Co.*, 132 F. 2d 812, 815 (C. A. 7); *William B. Scaife & Sons Company* v. *Falls City Woolen Mills*, 209 Fed. 210, 213 (C. A. 6), and cases cited; cf. *American Fruit Growers* v. *Brogdex Co.*, 283 U. S. 1, 14).

CONCLUSION

The decision of the court below is clearly correct and the case contains no issue which warrants review by this Court.

Respectfully submitted.

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OCTOBER TERM 1956

No. 367

HARRIS D. HINELINE,
Petitioner,

against

THE UNITED STATES,
Respondent,

ON PETITION FOR A WRIT OF CERTIORARI TO THE UNITED STATES COURT OF CLAIMS

REBUTTAL BRIEF FOR PETITIONER

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IN THE

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OCTOBER TERM 1956

No. 367

HARRIS D. HINELINE, *Petitioner*,

v.

THE UNITED STATES,

ON PETITION FOR A WRIT OF CERTIORARI TO THE UNITED STATES COURT OF CLAIMS

REBUTTAL BRIEF FOR PETITIONER

It is respectfully suggested to this Honorable Court that the brief filed for the Respondent, in opposition to your Petitioner's prayer for a Writ of Certiorari, does no more than say that the decision below is right because it is right!

Respondent's brief does not deny the existence in the lower Court's holding of the six questions presented by Petitioner on page 7 of the petition. These questions go to the essence of the decision and the necessary answers to these questions will show the errors in the holding made below. Furthermore, the brief for Respondent denies only the first of the errors pointed out by your Petitioner on page 8 of Petitioner's brief; offering no denial of errors 2, 3, 4 and 5 alleged by your Petitioner. Failure

of the Respondent's brief to traverse these errors is an admission that they exist, and the existence of any one of them is believed to invalidate the decision below.

Accordingly, since Respondent does not deny the existence of the questions posed and the errors specified, Respondent in effect admits that the action by the lower Court imperatively requires consideration by this Honorable Court. Under such circumstances Plaintiff and Respondent, in effect, join in asking this Honorable Court to review the action by the lower Court.

Under this state of fact it is believed and prayed that this Honorable Court will grant the requested Writ of Certiorari.

In support of this presentation of fact, it is pointed out that Respondent's brief says, on page 1:

> "Questions Presented
>
> Whether United States Military devices, which use radio waves to determine the altitude and position of an aircraft, infringe Petitioner's patent No. 2,366,621."

Nowhere in Respondent's following argument does Respondent deny the questions posed and the errors alleged in Petitioner's petition. Respondent merely repeats over again the arguments offered below, and Respondent's brief appears to be little more than a summary of the lower Court's decision.

Respondent's "statement" on page 2 describing the several structures is substantially correct and Respondent admits (beginning at the middle of his page 3) that the "technical manual (TM 11-527)" expressly describes the "rotary spark gap modulator" but he neglects to say that this manual was stipulated as showing the structure used, attempting to gloss over this vital error. In his

statement he disregards entirely the force of the stipulation, disregards entirely the clear fact that both Petitioner's and Respondent's *structures* are described by the same words and the several elements therein perform the same functions; disregards the agreed upon dictionary definition, showing the rigid equivalence of "phase" and "time", disregards the improperly entered and false chart, and disregards the effectiveness of Petitioner's prior date as awarded by the Patent Office; and in addition disregards Petitioner's alleged errors 2, 3, 4 and 5. Clearly a brief which disregards the essential items and questions raised by Petitioner, offers no grounds upon which to deny Petitioner's request.

Petitioner does not ask that this Honorable Court plunge into the complexities, intricacies and technicalities of radar and radio reflection distance ranging, but if this Court wishes to accede to Respondent's apparent request that these matters be considered *in extenso*, your Petitioner stands prepared to review with the Court these matters in any detail desired.

Wherefore, your Petitioner respectfully submits that Respondent's brief, by disregarding both the questions asked by Petitioner, and the vital errors alleged by Petitioner, admits that this Honorable Court may properly grant to Petitioner a Writ of Certiorari for review of the ruling by the lower Court. Accordingly, your Petitioner renews his plea and prayer for the granting of a Writ of Certiorari by this Honorable Court.

Respectfully,

HENRY B. KELLOG,
Counsel for Petitioner.

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United States Supreme Court

OCTOBER TERM 1956

No. 367

HARRIS D. HINELINE,
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against

THE UNITED STATES,
Respondent,

ON PETITION FOR A WRIT OF CERTIORARI TO THE UNITED STATES COURT OF CLAIMS

PETITION FOR RECONSIDERATION

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United States Supreme Court

OCTOBER TERM 1956

No. 367

HARRIS D. HINELINE,
Petitioner,

against

THE UNITED STATES,
Respondent,

ON PETITION FOR A WRIT OF CERTIORARI TO THE UNITED STATES COURT OF CLAIMS

PETITION FOR RECONSIDERATION

Now comes your petitioner and respectfully prays and begs that the denial of the Writ of Certiorari entered in this application of November 5, 1956 be reconsidered.

In support of this plea, it is respectfully submitted to your Honors that in this case, No. 49418, before the Court of Claims, a grave and unwarranted injustice has been done to your petitioner.

Your petitioner has a patent properly issued by the United States Patent Office disclosing and claiming a distance measuring device using reflected radio waves. The Government of the United States has had made and used large numbers of devices which do the same thing by the use of the same structural elements as claimed; and follow

accurately your petitioner's teaching as presented in his patent.

Yet the Court of Claims, in their decision, has disregarded the fact of identical results by the use of identical equipment, as claimed, and has denied infringement of your petitioner's claims by a sophistication of wording which is entirely without basis or foundation, and in support of that denial has entered in the decision, on page 6, a series of charts or diagrams which are wholly without support in any of the testimony, the source being entirely unknown to your petitioner and being a complete surprise to him. It is believed that this element of surprise in the Court of Claims' decision will justify at least a ruling by this Honorable Court returning the case to the Court of Claims for further testimony in regard to these diagrams.

Furthermore, the ruling of the Court of Claims, in total disregard of the stipulation, entered in the case, also is a complete surprise to your petitioner. It was stipulated between counsel for Defendant and counsel for Plaintiff that the identified descriptive booklet issued by the Government described apparatus made for, and used by, agencies of the United States, and this booklet presented structures falling squarely within the scope of your petitioner's claims. The complete disregard of this stipulation by the Court of Claims also is a surprise to your petitioner and neither of these items could have been anticipated by your petitioner prior to the handing down of the decision.

Furthermore, Defendant urged that "phase relationship" and "time" were wholly unrelated items. In contradiction of this contention, a quotation from Webster's unabridged dictionary was offered by Plaintiff and accepted by Defendant to show that "time" and "phase" were substantially the same thing; yet the Court of Claims elected to disregard this definition from Webster's dic-

tionary, thereby imposing upon your petitioner another item of surprise which he could not have anticipated prior to the decision as handed down.

It is respectfully submitted to this Honorable Court that these items of surprise, factors in the case which your petitioner could not possibly have anticipated, are such elements of surprise as to warrant, at the very least, a return of this case to the Court of Claims for the taking of further testimony to cover these items of surprise.

It is respectfully submitted to this Honorable Court that in the making of this decision, the Court of Claims has disregarded this Court's ruling in *Machine Company* v. *Murphy*, 97 Supreme Court 120, in which the Court said,

> "Authorities concur that the substantial equivalent of a thing, in the sense of the patent law, is the same as the thing itself; so that if two devices do the same work in substantially the same way and accomplish substantially the same result, they are the same, even though they differ in name, form, or shape. Curtis, Patents (4th ed.) sect. 310".

The Court of Claims' refusal to accept this clearly controlling ruling by the Honorable Court is most astonishing and it is believed that this refusal to follow the Supreme Court's specific holding also warrants a resubmission of this case to the Court of Claims for further consideration of the effect of this ruling by the Supreme Court in its application to the present situation.

It is believed that this Honorable Court has laid down rules for the conduct of the lower courts which in the present instance have been gravely disregarded. For instance, in the decision entered by this Court in *United States* v. *Abilene and Southern Railway Company*, 265 U. S. 274 at page 288 (44 Supreme Ct. 565), this Honorable Court expressly said, "nothing can be considered as evidence which is not introduced as such." The Court of

Claims offered diagrams and charts as a support for their decision, when these charts or diagrams had not been introduced in evidence and where there was no testimony in regard to them. Such a procedure is again a complete surprise to your petitioner and it is believed that equity in the matter requires that he be offered an opportunity to consider such matters in testimony to ascertain the actual facts.

This thought was repeated by this Honorable Court in the ruling made in *Helis* v. *Ward*, 308 U. S. 365 at page 370 (60 Supreme Ct. 283), in which this Honorable Court said, "the review by this court was sought and granted on the ground that the Circuit Court of Appeals had decided the merits on facts not contained in the record and on a theory which had never been tried by the litigants."

In view of the clear and dreadful injustice done to your petitioner by the Court of Claims in making these surprising rulings, it is believed that this Honorable Court will at least return the case to the Court of Claims for further testimony to clear up these elements of surprise, which your petitioner could not have expected or anticipated in advance of the rendering of the decision.

Wherefore, your petitioner respectfully prays and begs that his petition for certiorari be reconsidered, and such relief granted to your petitioner as is meet and proper in view of the facts presented.

Respectfully,

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